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**CANCELLED**  
**PATENT & TRADEMARK**

PTO/SB/17 (10-04v2)

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# FEE TRANSMITTAL FOR FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant Claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$ ) 340.00

Complete if Known

|                      |                         |
|----------------------|-------------------------|
| Application Number   | 09/890,863              |
| Filing Date          | August 7, 2001          |
| First Named Inventor | Junichi HAYAKAWA et al. |
| Examiner Name        | J. Befumo               |
| Group Art Unit       | 1771                    |
| Attorney Docket No.  | 0670-0264               |

## METHOD OF PAYMENT

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

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Account  
Number

50-2280

Deposit  
Account  
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Robinson Intellectual Property  
Law Office

☒ Charge Any Additional Fee Required  
Under 37 CFR 1.16 and 1.17 and  
credit overpayments

☐ Applicant claims small entity status.  
See 37 CFR 1.27

2. ☒ Payment Enclosed:

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## FEE CALCULATION

### 1. BASIC FILING FEE

| Large Entity<br>Fee Code | Fee (\$) | Small Entity<br>Fee Code | Fee (\$) | Fee Description        | Fee Paid |
|--------------------------|----------|--------------------------|----------|------------------------|----------|
| 1001                     | 790      | 2001                     | 395      | Utility filing fee     |          |
| 1002                     | 350      | 2002                     | 175      | Design filing fee      |          |
| 1003                     | 550      | 2003                     | 275      | Plant filing fee       |          |
| 1004                     | 790      | 2004                     | 395      | Reissue filing fee     |          |
| 1005                     | 160      | 2005                     | 80       | Provisional filing fee |          |

SUBTOTAL (1) (\$ )

### 2. EXTRA CLAIM FEES

| Total Claims       | Extra Claims | Fee from below | Fee Paid |
|--------------------|--------------|----------------|----------|
| -20** =            | X            | \$18           | =        |
| Independent Claims | -3** =       | X              | \$88     |
| Multiple Dependent |              |                |          |

| Large Entity<br>Fee Code | Fee (\$) | Small Entity<br>Fee Code | Fee (\$) | Fee Description  |
|--------------------------|----------|--------------------------|----------|--|
| 1202                     | 18       | 2202                     | 9        | Claims in excess of 20                                     |
| 1201                     | 88       | 2201                     | 44       | Independent claims in excess of 3                          |
| 1203                     | 300      | 2203                     | 150      | Multiple dependent claim, if not paid                      |
| 1204                     | 88       | 2204                     | 44       | ** Reissue independent claims over original patent         |
| 1205                     | 18       | 2205                     | 9        | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$ )

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

| Fee Code                  | Large Entity<br>Fee (\$) | Small Entity<br>Fee (\$) | Fee Description   | Fee Paid |
|---------------------------|--------------------------|--------------------------|---|----------|
| 1051                      | 130                      | 2051                     | 65 Surcharge - late filing fee or oath  |          |
| 1052                      | 50                       | 2052                     | 25 Surcharge - late provisional filing fee or cover sheet                     |          |
| 1053                      | 130                      | 1053                     | 130 Non-English specification   |          |
| 1812                      | 2,520                    | 1812                     | 2,520 For filing a request for <i>ex parte</i> reexamination                  |          |
| 1804                      | 920*                     | 1804                     | 920* Requesting publication of SIR prior to Examiner action                   |          |
| 1805                      | 1,840*                   | 1805                     | 1,840* Requesting publication of SIR after Examiner action                    |          |
| 1251                      | 110                      | 2251                     | 55 Extension for reply within first month                                     |          |
| 1252                      | 430                      | 2252                     | 215 Extension for reply within second month                                   |          |
| 1253                      | 980                      | 2253                     | 490 Extension for reply within third month                                    |          |
| 1254                      | 1,530                    | 2254                     | 765 Extension for reply within fourth month                                   |          |
| 1255                      | 2,080                    | 2255                     | 1040 Extension for reply within fifth month                                   |          |
| 1401                      | 340                      | 2401                     | 170 Notice of Appeal  |          |
| 1402                      | 340                      | 2402                     | 170 Filing a brief in support of an appeal                                    | \$340    |
| 1403                      | 300                      | 2403                     | 150 Request for oral hearing  |          |
| 1451                      | 1,510                    | 1451                     | 1,510 Petition to institute a public use proceeding                           |          |
| 1452                      | 110                      | 2452                     | 55 Petition to revive - unavoidable   |          |
| 1453                      | 1,370                    | 2453                     | 685 Petition to revive - unintentional  |          |
| 1501                      | 1,370                    | 2501                     | 685 Utility issue fee (or reissue)  |          |
| 1502                      | 490                      | 2502                     | 245 Design issue fee  |          |
| 1503                      | 660                      | 2503                     | 330 Plant issue fee   |          |
| 1460                      | 130                      | 1460                     | 130 Petitions to the Commissioner   |          |
| 1807                      | 50                       | 1807                     | 50 Processing fee under 37 CR 1.17(q)   |          |
| 1806                      | 180                      | 1806                     | 180 Submission of Information Disclosure Stmt                                 |          |
| 8021                      | 40                       | 8021                     | 40 Recording each patent assignment per property (times number of properties) |          |
| 1809                      | 790                      | 2809                     | 395 Filing a submission after final rejection (37 CFR § 1.129(a))             |          |
| 1810                      | 790                      | 2810                     | 395 For each additional invention to be examined (37 CFR § 1.29(b))           |          |
| 1801                      | 790                      | 2801                     | 395 Request for Continued Examination (RCE)                                   |          |
| 1802                      | 900                      | 1802                     | 900 Request for expedited examination of a design application                 |          |
| Other fee (specify) _____ |                          |                          |   |          |

\* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 340.00

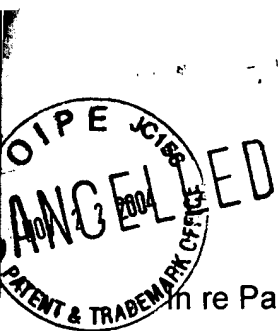
### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 11-23-04 *Adelle M. Stanger*

## SUBMITTED BY

|                   |                         |                                   |        |           |                |
|-------------------|-------------------------|-----------------------------------|--------|-----------|----------------|
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| Signature         | <i>Eric J. Robinson</i> |                                   |        | Date      | 11-23-04       |

Complete (if applicable)



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Junichi HAYAKAWA et al.

Serial No. 09/890,863

Filed: August 7, 2001

For: WOVEN FABRIC FOR LOUD-  
SPEAKER DIAPHRAGM,  
DIAPHRAGM FOR LOUD-SPEAKER  
AND LOUD-SPEAKER

) Group Art Unit: 1771

) Examiner: J. Befumo

) CERTIFICATE OF MAILING

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11-23-04Adeline StampsAPPEAL BRIEF

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 35 U.S.C. § 134 and 37 C.F.R. § 1.192(a),  
Appellants submit this Appeal Brief to appeal the examiner's final rejection of claims 19-  
24 in the Official Action mailed March 23, 2004.

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**I. REAL PARTY IN INTEREST**

The named inventors have assigned all ownership rights in the pending application to Kabushiki Kaisha Kenwood, 14-6, Dougenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, Japan, which is the real party in interest.

**II. RELATED APPEALS AND INTERFERENCES**

The appellants, their legal representatives, and the assignee are not aware of any other prior or pending appeals, interferences or judicial proceedings which will directly affect or be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF THE CLAIMS**

Claims 19-24 are pending in the present application, of which claims 19, 23 and 24 are independent. Claims 1-18 were canceled and claims 19-24 stand rejected. No claims have been deemed allowable by the examiner.

**IV. STATUS OF AMENDMENTS**

The Appellants filed an *Amendment After Final* on July 23, 2004, but the *Amendment After Final* was not entered by the Examiner for reasons stated in an *Advisory Action* mailed August 19, 2004. In response to the *Advisory Action*, the Appellants filed a *Notice of Appeal* regarding the rejection of claims 19-24. The claims that are the subject of the present Appeal are as set forth in the *Amendment* filed July 10, 2003. The Appellants do not wish to have the *Amendment After Final* entered. Thus, the status of the claims in this application is as set forth above, and in Appendix A. All prior amendments are believed to have been entered in the present application.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention is directed to a loud-speaker (e.g. Figure 6, loud-speaker 3) comprising a diaphragm (e.g. diaphragm 4), a portion of the diaphragm comprising a woven fabric woven with a thread (e.g. Figures 1 to 5) comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber (e.g. PBO fiber 1) and at

least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments (e.g. polyester fiber 2). Also, the present invention is directed to a diaphragm for a loud-speaker comprising a woven fabric woven with the thread described above. Further, the present invention is directed to a woven fabric for loud-speaker diaphragm using a woven fabric woven with the thread described above.

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Paragraph 4 of the Official Action rejects claims 19-24 as anticipated by U.S. Patent No. 5,233,821 to Weber, Jr. et al. The claims shall not stand or fall together, but shall be separately argued as follows:

1. Whether claims 22 and 24 are anticipated by Weber.
2. Whether claims 21 and 23 are anticipated by Weber.
3. Whether claims 19 and 20 are anticipated by Weber.

## **VII. ARGUMENTS**

Paragraph 4 of the Official Action rejects claims 19-24 as being anticipated by U.S. Patent No. 5,233,821 to Weber, Jr. et al. The Appellants respectfully traverse the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Appellants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention. Weber does not teach all the elements of the independent claims, either explicitly or inherently. Specifically, Weber does not teach a loud-speaker comprising a diaphragm, a diaphragm for a loud-speaker, or a woven fabric for a loud-speaker diaphragm, either explicitly or inherently.

Weber is directed to providing a fabric for a garment which is "useful for protection against fire and/or cutting" (column 1, lines 6-8). More specifically, Weber appears to describe synthesizing a fiber such as PBO having a desired tensile strength, forming a

composite thread of a plurality of fibers containing the synthesized fiber, wrapping the composite thread with a wrap fiber and weaving the wrapped composite threads into the fabric by a prior art method. As noted in detail below, Weber is completely silent as to a loud-speaker, a loud-speaker diaphragm or a woven fabric for a loud-speaker diaphragm, and Weber does not inherently teach such features.

1. Whether claims 22 and 24 are anticipated by Weber.

Dependent claim 22 positively recites a loud-speaker comprising a loud-speaker diaphragm. Specifically, claim 22 recites a loud-speaker comprising a loud-speaker diaphragm, characterized in that the loud-speaker diaphragm is made up of the woven fabric for a loud-speaker diaphragm according to claims 19 or 20. Independent claim 24 recites a loud-speaker comprising a diaphragm. With respect to claims 22 and 24, the Official Action asserts that “the limitation that the woven fabric is used in a loud-speaker is viewed as intended use since the claims fail to positively recite the structure of the loud-speaker other than the woven fabric itself” (page 3, Paper No. 0304). The Appellants respectfully disagree and traverse the above assertions.

Initially, it is noted that claims 22 and 24 do not recite that “the woven fabric is used in a loud-speaker.” This is a mischaracterization of the claims. Rather, a loud-speaker and a loud-speaker diaphragm are positively recited in the claims as described in detail above. These features are also described in the specification, for example at paragraph [0034], and in the drawings at Figures 6(A) and 6(B). The descriptions in the present specification and in Figures 6(A) and 6(B) indicate that a loud-speaker is a sound producing device. Specifically, an example of a loud-speaker is shown in Figures 6(A) and 6(B) and is marked with reference number 3. The specification notes the following: “the above described woven fabric is used on the surface of the diaphragm 4 of the loud-speaker [3] ... The diaphragm 4 for the loud-speaker using the above described woven fabric for the loud-speaker diaphragm is installed in the main body of the loud-speaker 3” (page 13, paragraphs [0034] – [0035]). The loud-speaker recited in claims 22 and 24 is not merely an intended use, rather it is a positively recited element of the claim and cannot be dismissed. The same is true of the diaphragm recited in claims 22 and 24. The Appellants simply cannot understand how the Official Action comes to the conclusion

that the positively recited limitations of a loud-speaker and a loud-speaker diaphragm can be viewed as intended use.

The Official Action has presented Weber, which appears to teach a fabric for a garment which is “useful for protection against fire and/or cutting.” In other words, Weber teaches a glove comprising a fabric with a PBO thread, etc. Weber has absolutely nothing to do with loud-speakers, either explicitly or inherently. Therefore, Weber does not teach a loud-speaker, either explicitly or inherently.

2. Whether claims 21 and 23 are anticipated by Weber.

Dependent claim 21 positively recites a diaphragm for a loud-speaker. Specifically, claim 21 recites a diaphragm for a loud-speaker, characterized in that the woven fabric for a loud-speaker diaphragm according to claims 19 or 20 is used in at least a portion of the diaphragm. Independent claim 23 recites a diaphragm for a loud-speaker. With respect to claims 21 and 23, the Official Action asserts that “claims 21 and 23 which recite ‘a diaphragm for a loud speaker’ in the preamble is interpreted as intended use since the Applicant fails to recite any further structural limitations to the woven fabric” (page 4, Paper No. 0304). The Appellants respectfully disagree and traverse the above assertions.

A diaphragm for a loud-speaker is positively recited in claims 21 and 23 as described in detail above. The descriptions in the present specification and in Figures 6(A) and 6(B) indicate that a diaphragm is that portion of a loud-speaker which vibrates to produce sound waves. Specifically, an example of a diaphragm is shown in Figures 6(A) and 6(B) and is marked with reference number 4. As noted above, the specification describes the following: “the above described woven fabric is used on the surface of the diaphragm 4 of the loud-speaker [3] ... The diaphragm 4 for the loud-speaker using the above described woven fabric for the loud-speaker diaphragm is installed in the main body of the loud-speaker 3” (page 13, paragraphs [0034] – [0035]). The diaphragm recited in claims 21 and 23 is not merely an intended use, rather it is a positively recited feature of the claim and cannot be dismissed.

As noted above, the Official Action has presented Weber, which teaches, for example, a glove comprising a fabric with a PBO thread. In addition to having nothing to

do with loud-speakers, Weber has absolutely nothing to do with diaphragms for loud-speakers, either explicitly or inherently. Therefore, Weber does not teach a diaphragm, either explicitly or inherently.

3. Whether claims 19 and 20 are anticipated by Weber.

Independent claim 19 recites "a woven fabric for loud-speaker diaphragm." The Official Action asserts that the "loud speaker diaphragm is not positively recited, and is considered intended use, and the prior art should only be capable of performing the intended use, which in this case is true" (page 4, Paper No. 0304). The Applicants respectfully disagree and traverse the above-referenced assertions.

MPEP § 2111.02, under the heading "PREAMBLE STATEMENTS LIMITING STRUCTURE" notes the following:

Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. ... In re Stencel, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987). (The claim at issue was directed to a driver for setting a joint of a threaded collar, however the body of the claim did not directly include the structure of the collar as part of the claimed article. The examiner did not consider the preamble, which did set forth the structure of the collar, as limiting the claim. The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in the preamble did limit the structure of the driver. "[T]he framework - the teachings of the prior art - against which patentability is measured is not all drivers broadly, but drivers suitable for use in combination with this collar, for the claims are so limited." *Id.* at 1073, 828 F.2d at 754.).

MPEP § 2111.02, under the heading "PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE" notes the following:

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim. ...

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference ... between the claimed invention and the prior art. If so, the recitation serves to limit the claim.



A review of the entirety of the record indicates that the inventors actually invented and intended to encompass a woven fabric for a loud-speaker diaphragm. The specification is clearly directed to a woven fabric for a loud-speaker diaphragm as recited in the abstract, and in paragraphs [0001], [0009], [0013], [0015], [0016], [0019] – [0023], [0027], [0032], [0035] – [0037], [0039] – [0041] and [0043]. The Appellants respectfully submit that the teachings of the prior art against which patentability is measured should not be all woven fabrics broadly, but woven fabrics suitable for use in combination with a loud-speaker or a loud-speaker diaphragm. As a practical matter, a woven fabric for a loud-speaker diaphragm at least has a different shape from, for example, the glove of Weber. As such, the recitation of “a woven fabric for loud-speaker diaphragm” serves to limit the claim and should be interpreted accordingly. For the reasons stated in detail above, Weber does not teach a loud-speaker diaphragm, either explicitly or inherently.

Since Weber does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

For all of the above reasons, the present application is believed to be in condition for allowance and favorable reconsideration is respectfully requested. If the Examiner feels further discussions would expedite prosecution of this application, she is invited to contact the undersigned.

Respectfully submitted,

---

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**VIII. APPENDICES**

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|----|---|----|
| A. | CLAIMS INVOLVED IN THE APPEAL                     | 10 |
| B. | REFERENCES  | 12 |
|    | 1. U.S. Patent No. 5,233,821 to Weber, Jr. et al. |    |
| C. | EVIDENCE APPENDIX                                 | 12 |
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APPENDIX A  
PENDING CLAIMS

1-18. (Canceled)

19. (Previously Presented) A woven fabric for loud-speaker diaphragm using a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

20. (Previously Presented) The woven fabric for loud-speaker diaphragm according to claim 19, characterized in that said colored fiber is made up of glass, polyester or polypropylene.

21. (Previously Presented) A diaphragm for loud-speaker, characterized in that said woven fabric for loud-speaker diaphragm according to claims 19 or 20 is used in at least a portion of the diaphragm.

22. (Previously Presented) A loud-speaker comprising a loud-speaker diaphragm, characterized in that the loud-speaker diaphragm is made up of said woven fabric for loud-speaker diaphragm according to claims 19 or 20.

23. (Previously Presented) A diaphragm for a loud-speaker comprising a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at

least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

24. (Previously Presented) A loud-speaker comprising a diaphragm, a portion of the diaphragm comprising a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

APPENDIX B  
REFERENCES

Copies attached.

APPENDIX C  
EVIDENCE APPENDIX

Not applicable.

APPENDIX D  
RELATED PROCEEDINGS APPENDIX

Not applicable.